33. The radiation source of claim 31, wherein said means for containment comprises a metal selected from the group consisting of stainless steel, Ag, Pt, Ti, Ni, Fe, Mn, Cr, Nb, Co, Au or their alloys or a casing coated with these metals.

34. The radiation source of claim 31, wherein the seeds have an elongated shape and an axis of elongation.

35. The radiation source of claim 34, wherein radiation source is elongate along a central axis, and wherein the central axis of the radiation source essentially parallels the elongated axis of the seeds.

36. The radiation source of claim 31, wherein radiation emitting element comprises any α-, β- and/or γ-emitting substance.

37. The radiation source of claim 36, wherein radiation emitting element comprises one or more radioactive materials selected from the group consisting of Cs^{137}, Co^{57}, Sr^{89}, Y^{90}, Au^{198}, Pd^{103}, Se^{75}, Sr^{90}, Ru^{106}, P^{32}, Ir^{192}, Re^{188}, W^{188} and I^{125}.

38. The radiation source according to claim 31, wherein the seeds are linked by magnetic forces to each other and/or to the transfer wire.

39. The radiation source of claim 38, wherein said means for containment comprises a magnetizable or magnetic material.

40. The radiation source of claim 31, wherein the seeds have rounded or spherical end caps on one or both ends.

41. The radiation source according to claim 31, wherein the seeds are mechanically linked.

42. The radiation source according to claim 41, wherein the seeds are linked mechanically and magnetically.

43. The radiation source according to claim 41, wherein the seeds comprise male and female means for coupling, which female means for coupling receive the male means for coupling of the following or preceding seed in the radiation source to form a flexible joint.

44. The radiation source of claim 43, wherein male and female means for coupling are on opposing sides of the seed.

45. The radiation source of claims 43, wherein the male means for coupling comprises a head and optionally a spacing member and the female means for coupling comprises a receiving section adapted for receiving the head.

46. The radiation source of claim 43, wherein the male means for coupling is a hook and the female means for coupling is a second hook or a loop.

47. The radiation source of claim 43, wherein the male means for coupling comprises a spacing member and a spherical head and the receiving section of the female means for coupling is formed by extensions of the means for containment defining a hollow space having a recess to receive the spacing member when the head of the male means for coupling is placed in the hollow portion of said female means for coupling.

48. The radiation source according to claim 41, wherein the at least two seeds are linked to each other by way of a flexible single joining member extending throughout the length of the radiation source.

49. An apparatus for endovascular radiation treatment, comprising

an elongated catheter having a proximal end portion, a distal end portion and a lumen extending therebetween for receiving a radiation source,

optionally a guide wire in a separate lumen, and

a radiation source which comprises one or more seeds (treating elements) comprising a radiation emitting element and means for containment of said radiation emitting element, wherein said seeds are sequentially, directly and movably attached to each other and/or to a transfer wire.

50. An apparatus of claim 49, wherein the seeds have an elongated shape and an axis of elongation, wherein radiation source is elongate along a central axis, and wherein the central axis of the radiation source essentially parallels the elongated axis of the seeds.

51. An apparatus of claim 49, comprising a containment vessel for the radiation source and/or the individual seeds.

52. An apparatus of claim 49, comprising a x-ray fluoroscopy device.

53. An apparatus of claim 49, comprising a magnetic means.

54. A method for vascular radiation treatment comprising the steps of

(a) directing an elongated catheter having a proximal end portion, a distal end portion and a lumen extending therebetween for receiving a radiation source, to the selected site to be treated preferably by way of a guide wire in a separate lumen,

(b) introducing a radiation source into the catheter at its proximal end portion, which radiation source comprises one or more seeds (treating elements) comprising a radiation emitting element and means for containment of said radiation emitting element, wherein said seeds are directly and movably attached to each other and/or to a transfer wire and which can be moved through said lumen of the catheter, preferably by use of a transfer wire,

(c) moving said radiation source to said distal end portion preferably by use of a transfer wire,

(d) maintaining said radiation source at said distal end for a determined period of time, and

(e) retracting said radiation source to the proximal end portion preferably by use of a transfer wire.

55. A method of claim 54, wherein moving and/or retracting in steps (c) and/or (e) is achieved by pushing or pulling the radiation source.

56. A method of claim 54, wherein said movement in step (c) is achieved by pushing and said movement in step (e) is achieved by pulling said radiation source.

57. A method of claim 54, wherein the seeds are linked to each other by magnetic forces and the transfer wire comprises a

magnet to magnetically push and pull the radiation source in step (c) and/or (e).

58. A method of claim 54, wherein the radiation source is moved by applying an external magnetic field.

59. A method of claim 54, wherein the transfer wire comprises a male or female means for coupling and the radiation source is linked to the transfer wire by engagement with the complementary means for coupling on the terminal seed thereof.

60. A method of claim 54, wherein the seeds have an elongated shape and an axis of elongation, wherein radiation source is elongate along a central axis, and wherein the central axis of the radiation source essentially parallels the elongated axis of the seeds.

REMARKS

The claims have been amended in order to eliminate multiple dependent claims and claims improperly depending from multiple dependent claims, and to otherwise conform the claims to U.S. practice. Care has been taken to ensure that no new matter is added to the text.

Entry and favorable consideration prior to consideration are respectfully requested.

Respectfully submitted,

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